MAIL TO:

STATE OF UTAH
DIVISION OF PURCHASING
3150 STATE OFFICE BUILDING, CAPITOL HILL
P.O. BOX 141061
SALT LAKE CITY, UTAH 84114-1061
TELEPHONE (801) 538-3026
http://purchasing.utah.gov

Invitation to Bid

Solicitation Number: **BV5030-1**

Due Date: **1/05/05 at 2:00 P.M.**
.

Date Sent: December 20, 2004

Goods and services to be ***IN LIEU OF PREVIOUS BID* GAS CHROMATOGRAPH/MASS SPECTROMETER**

Please complete

Company Name		Federal Tax Identification Number	
Ordering Address	City	State	Zip Code
Remittance Address (if different from ordering address)	City	State	Zip Code
Type ☐ Corporation ☐ Partnership ☐ Proprietorship Government	Company Contact Person		
Telephone Number (include area code)	Fax Number (include area code)		
Company's Internet Web Address	Email Address		
Discount Terms (for bid purposes, bid discounts less than 30 days will not be considered)	Days Required for Delivery After Receipt of Order (see attached for any required minimums)		

The following documents are included in this solicitation: Solicitation forms, instructions and general provisions, and specifications. Please review all documents carefully before completing.

The undersigned certifies that the goods or services offered are produced, mined, grown, manufactured, or performed in Utah. Yes_____ No_____. If no, enter where produced, etc._____

Offeror's Authorized Representative's Signature	Date
Type or Print Name	Position or Title

STATE OF UTAH
DIVISION OF PURCHASING

Invitation to Bid

Solicitation Number: **BV5030-1**

Due Date: **1/05/2005**

Vendor Name:

Item #	Qty	Unit	Description	Unit Price	Extension
001	1	EA.	***IN LIEU OF PREVIOUS BID*** GAS CHROMATOGRAPH/MASS SPECTROMETER, PER THE ATTACHED REVISED SPECIFICATIONS. BRAND: _____ MODEL: _____ MUST PROVIDE PRODUCT LITERATURE OR YOUR BID MAY BE REJECTED.	$	$

QUESTIONS ON SPECIFICATIONS CALL ROBERT ANDERSON AT (801) 584-8444.

QUESTIONS ON PURCHASING PROCESS (NOT RELATED TO SPECIFICATIONS) CALL BRENDA VELDEVERE AT (801) 538-3142.
RX: 270 58000000016
COMMODITY CODE: 49369

Ship To: **DEPARTMENT OF HEALTH**
STATE LABORATORY/SERVICES
46 NORTH MEDICAL DRIVE

FREIGHT CHARGES (if applicable)

SHIPPING POINT AND ZIP CODE	
SHIPPING WEIGHT	

MODE OF TRANSPORTATION (Please check one)

Q Small package/Ground **Q** LTL(Less than truck load) NMFC Class #_____ NMFC Item # _____ **Q** Truckload **Q** Air **Q** Other (Please specify)

TOTAL PRICE LESS FREIGHT (FOB Origin)	**$**
TOTAL PRICE INCLUDING FREIGHT (FOB Destination)	**$**

INVITATION TO BID - INSTRUCTION AND GENERAL PROVISIONS

1. BID PREPARATION: (a) All prices and notations must be in ink or typewritten. (b) Price each item separately. Unit price shall be shown and a total price shall be entered for each item bid. Errors may be crossed out and corrections printed in ink or typewritten adjacent and must be initialed in ink by person signing quotation. (c) Unit price will govern, if there is an error in the extension. (d) Delivery time is critical and must be adhered to as specified. (e) Wherever in this document an item is defined by using a trade name of a manufacturer and/or model number, it is intended that the words, "or equivalent" apply. "Or equivalent" means any other brand that is equal in use, quality, economy and performance to the brand listed as determined by the Division of Purchasing & General Services (DIVISION). If the vendor lists a trade name and/or catalog number in the bid, the DIVISION will assume the item meets the specifications unless the bid clearly states it is an alternate, and describes specifically how it differs from the item specified. All bids must include complete manufacturer's descriptive literature if quoting an equivalent product. All products are to be of new, unused condition, unless otherwise requested in this solicitation. (f) By signing the bid the vendor certifies that all of the information provided is accurate, that they are willing and able to furnish the item(s) specified, and that prices quoted are correct. (g) This bid may not be withdrawn for a period of 60 days from bid due date.

2. SUBMITTING THE BID: (a) The bid must be signed in ink, sealed in a properly-addressed envelope, and either mailed or delivered to the DIVISION OF PURCHASING, 3150 State Office Building, Capitol Hill, Salt Lake City, UT 84114-1061 by the "Due Date and Time." **The "Bid Number" and "Due Date" must appear on the outside of the envelope.** (b) Bids, modifications, or corrections received after the closing time on the "Due Date" will be considered late and handled in accordance with the Utah Procurement Rules, section R33-3-109. (c) **Your bid will be considered only if it is submitted on the forms provided by the state. Facsimile transmission of bids to DIVISION will not be considered.** (d) All prices quoted must be both F.O.B. Origin per paragraph 1.(c) and F.O.B. Destination. Additional charges including but not limited to delivery, drayage, express, parcel post, packing, cartage, insurance, license fees, permits, costs of bonds, or for any other purpose must be included in the bid for consideration and approval by the DIVISION. Upon award of the contract, the shipping terms will be F.O.B. Destination, Freight Prepaid with freight charges to be added to the invoice unless otherwise specified by the DIVISION.

3. SOLICITATION AMENDMENTS: All changes to this solicitation will be made through written addendum only. Bidders are cautioned not to consider verbal modifications.

4. PROPRIETARY INFORMATION: Suppliers are required to mark any specific information contained in their bid which is not to be disclosed to the public or used for purposes other than the evaluation of the bid. Each request for nondisclosure must to be accompanied by a specific justification explaining why the information is to be protected. Pricing and service elements of any bid will not to be considered proprietary. Bids submitted may to be reviewed and evaluated by any persons at the discretion of the state.

5. SAMPLES: Samples of item(s) specified in this bid, when required by DIVISION, must to be furnished free of charge to DIVISION. Any item not destroyed by tests may, upon request made at the time the sample is furnished, to be returned at the bidder's expense.

6. WARRANTY: The contractor agrees to warrant and assume responsibility for all products (including hardware, firmware, and/or software products) that it licenses, contracts, or sells to the State of Utah under this contract for a period of one year, unless otherwise specified and mutually agreed upon elsewhere in this contract. The contractor (seller) acknowledges that all warranties granted to the buyer by the Uniform Commercial Code of the State of Utah applies to this contract. Product liability disclaimers and/or warranty disclaimers from the seller are not applicable to this contract unless otherwise specified and mutually agreed upon elsewhere in this contract. In general, the contractor warrants that: (1) the product will do what the salesperson said it would do, (2) the product will live up to all specific claims that the manufacturer makes in their advertisements, (3) the product will be suitable for the ordinary purposes for which such product is used, (4) the product will be suitable for any special purposes that the State has relied on the contractor's skill or judgement to consider when it advised the State about the product, (5) the product has been properly designed and manufactured, and (6) the product is free of significant defects or unusual problems about which the State has not been warned. Remedies available to the State include the following: The contractor will repair or replace (at no charge to the State) the product whose nonconformance is discovered and made known to the contractor in writing. If the repaired and/or replaced product proves to be inadequate, or fails of its essential purpose, the contractor will refund the full amount of any payments that have been made. Nothing in this warranty will be construed to limit any rights or remedies the State of Utah may otherwise have under this contract.

7. DIVISION APPROVAL: Purchase orders placed, or contracts written, with the state of Utah, as a result of this bid, will not to be legally binding without the written approval of the director of the DIVISION.

8. AWARD OF CONTRACT: (a) the contract will to be awarded with reasonable promptness, by written notice, to the lowest responsible bidder that meets the specifications. Consideration will to be given to the quality of the product(s) to be supplied, conformity to the specifications, the purpose for which required, delivery time required, discount terms and other criteria set forth in this invitation to bid. (b) The bids are opened publicly in the presence of one or more witnesses. the name of each bidder, and the amount of the bid is recorded. Each bid, and the record, is open to public inspection. (c) The DIVISION may accept any item or group of items, or overall low bid. the DIVISION has the right to cancel this invitation to bid at any time prior to the award of contract. (d) The DIVISION can reject any and all bids. And it can waive any informality, or technicality in any bid received, if the DIVISION believes it would serve the best interest of the State. (e) Before, or after, the award of a contract the DIVISION has the right to inspect the bidder's premises and all business records to determine the holder's ability to meet contract requirements. (f) DIVISION does not guarantee to make any purchase under awarded contract(s). Estimated quantities are for bidding purposes only, and not to be interpreted as a guarantee to purchase any amount. (g) Utah has a reciprocal preference law which will to be applied against bidders bidding products or services produced in states which discriminate against Utah products. For details see Section 63-56 20.5 -20.6, Utah Code Annotated.

9. ANTI-DISCRIMINATION ACT: The bidder agrees to abide by the provisions of the Utah Anti-discrimination Act, Title 34 Chapter 35, U.C.A. 1953, as amended, and Title VI and Title VII of the Civil Rights Act of 1964 (42 USC 2000e), which prohibit discrimination against any employee or applicant for employment, or any applicant or recipient of services, on the basis of race, religion, color, or national origin; and further agrees to abide by Executive Order No. 11246, as amended, which prohibits discrimination on the basis of sex; 45 CFR 90 which prohibits discrimination on the basis of age, and Section 504 of the Rehabilitation Act of 1973 or the Americans with Disabilities Act of 1990, which prohibits discrimination on the basis of disabilities. Also bidder agrees to abide by Utah's Executive Order, dated March 17, 1993, which prohibits sexual harassment in the workplace. Vendor must include this provision in every subcontract or purchase order relating to purchases by the State of Utah to insure that the subcontractors and vendors are bound by this provision.

10. DEBARMENT: The CONTRACTOR certifies that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction (contract) by any governmental department or agency. If the CONTRACTOR cannot certify this statement, attach a written explanation for review by the STATE.

11. GOVERNING LAWS AND REGULATIONS: All state purchases are subject to the Utah Procurement Code, Title 63 Chapter 56 U.C.A. 1953, as amended, and the Procurement Regulations as adopted by the Utah State Procurement Policy Board. These are available on the Internet at www.purchasing.utah.gov

(Revision 14 Mar 2003 - IFB Instructions)

IN LIEU OF PREVIOUS BID BV5030-1

Specifications for the Gas Chromatograph/Mass Spectrometer (GC/MS) for the Utah Division of Laboratory Services

INTRODUCTION

The Utah Division of Laboratory Services is requesting bids for a gas chromatograph/mass spectrometer system. It will be used in the analysis of toxicology specimens for the presents of drugs and other toxins. The primary application for this instrument will be the quantitation of Tetrahydrocannabinol (THC) and 11-nor-9-carboxy-tetrahydrocannabinol (THCCOOH) in whole blood samples by negative chemical ionization (NCI). Secondary use will be to confirm and quantitate Cocaine, Benzoylecgonine and Morphine in whole blood samples using positive chemical ionization (PCI). The system will have three ionization modes EI, CI and NCI. The system should be capable of being completely automated, from injection through final report, for unattended operation. Will consider insturments that can be upgraded to a MS/MS and/or LC/MS configuration.

The instrument manufacturer must address in detail any specification that they cannot fully provide. The vendor also should respond to each specific question ask in the bid. Failure to respond could result in rejection of the bid.

The bid will be awarded to the manufacturer that can provide the best combination of a fully integrated GC/MS system with true multi-tasking data system, technical support for both hardware and software, service, and price. The system must have a proven record in performing the above analysis in forensic toxicology laboratory.

After the installation, the system must be tested on site in the presence of the user and must meet or exceed the specifications described in the bid specifications (based on our minimum requirements or the specifications provided by the manufacturer, whichever is the better). The specifications must be met before acceptance and payment will be made.

The following components are required: Gas Chromatograph/Mass spectrometer system equipped with a autosampler, having a true multi-tasking data system with complete data processing software. It should be a completely integrated system with complete computer control of the GC and autosampler unit. It should have at least a ten year use guarantee.

Gas Chromatograph

1. Must have all temperature parameters controlled and read via the data system terminal with access and control from the GC keyboard; must be able to alter GC parameters from the GC keyboard during mass spectrometer data acquisition.

2. Must have multi-linear temperature programming capability with at least 4 temperature ramps and four isothermal segments in minimum steps of 0.1°C/min. It must be able to store and recall multiple sets of temperature profiles and instructions. All control and readout functions can be performed through the data system terminal.

3. The oven temperature must have an operating range of +4°C to +450°C. Ramp rate of 0° to 70°C/min with an optional rate up to 120°C for fast oven programming. Maximum run time of at least 650 min.

4. Must have continuous digital temperature readout through data system terminal.

5. Must have independently heated split/splitless injector installed for fused silica capillary columns. Injector must have computer-actuated split and sweep valve. The inlet must operate with backpressure control in the split mode to allow for the independent adjustment to spilt flow without affecting the column flow rate. Accommodate columns of 0.050 to 0.530 mm internal diameter. Should have electronic pneumatic control to adjust for atmospheric pressure and ambient temperature in real time. A vacuum compensation mode is required.

6. Prefer a system that allows the changing of inlet liner without the use of tools.

7. System automatically shuts off gases in case of a leak. Gas saver mode must be standard to reduce split vent flow during the analysis.

8. Must be able to accept GC autosampler with system integration for data system control.

9. Rigid short line-of-sight transfer line between the GC and MS.

10. Must include complete manuals for operation and maintenance.

Autosampler for the Gas Chromatograph:

1. Must be able to accommodate at least 100 samples and be completely controlled through the GC data system.

2. Must be able to use industry-standard syringes and sample vials.

3. Must be fully automated and controlled through the data system and must have random access sampling capability.

4. Injection precision must be less than 1% RSD.

5. Must be electronically driven. Pressure driven Autosampler are not acceptable.

6. The sampler should be easily mounted and dismounted without the use of tools.

7. Must be able to vary injection styles and volume.

8. Should have a bar code reader available bid as an option.

Mass spectrometer:

1. The mass analyzer must have a mass range of at least 2-800 amu in 0.1 amu steps. The linear dynamic range must be over 4 orders of magnitude.

2. The system must be able to maintain mass axis stability(after warm-up) of $\pm$0.10 amu over an fortyeight-hour period.

3. The mass analyzer must have better than unit mass resolution (10% valley) maintained over the entire mass range.

4. Must have the electronics to scan at a rate of up to 10,000 amu/sec. Must list the write to disk scan speed.

5. **Sensitivity EI**: Scan: Splitless injection of 1 pg of octafluoronaphthalene (OFN) shall yield a signal-to-noise (S/N) ratio for the molecular ion (272 m/z) at of at least >60:1. This should also produce a library-searchable spectrum from 50 to 300 amu. SIM: Splitless injection of 20 fg of OFN gives a >10:1 S/N at 272 m/z ion.

6. **Sensitivity CI**: Should have a high sensitivity positive chemical ionization source. All ion source parameters should be controlled via the data system. Specific CI+ tune parameters may be stored under user defined names. CI reagent gas switching is performed by a data system controlled solenoid valve. In the scan mode an injection of 100 pg of decafluorobenzophenone (BZP) or an equivalent compound should exceed a signal to noise ratio of >75:1 S/N on m/z 363 or other commonly monitored ion. In the SIM mode: 1 pg BZP should give >10:1 S/N using methane reagent gas at m/z 183 ion.

7. **Sensitivity NCI**: Should have high sensitivity negative chemical ionization mode of operation. Identical source and tuning capability, as described above. An injection of 1pg of OFN or an equivalent compound should exceed a signal to noise ratio of >500:1 S/N in scan mod. In the SIM mode 1 fg of OFN should give a >10:1 S/N ratio at m/z 272 ion.

8. The bid response should list the published sensitivity specifications for chemical ionization modes of operation at the time of installation and what sensitivity could be expected a month later.

9. The linear dynamic range should be over 4 orders of magnitude for calibration curves and the system should not arbitrarily set ionization times. The system must generate classical electron

impact (EI) spectra.

10. Prefer a system with dual filaments, with status and filament selection under computer control. The filament voltage should be user-selectable. The filament emission current should be user-selectable in all modes of operation.

11. Must have independently heated ion source (150-300 degrees C.), quadrupole (100-200 degrees C.) and interface (100-350 degrees C.).

12. Acquisition rate (full spectrum) up to 10 spectra per second, set able from 5.0 to 0.1 s in 0.1 ms intervals.

13. Should be equipped with an high energy dynode detector. On/Off and voltage control of multiplier must be under data system control.

14. The calibration gas and CI gas under microprocessor controlled solenoid valves, under complete data system control.

15. System must be fully protected against power failure and automatically protected against over heating and back-streaming of pump oil or vapor.

16. Programmable shutdown and vent cycle under data system control.

17. Selected ion monitoring (SIM) capability must be at least 32 groups of masses, with 30 masses per group. The dwell time is selectable by the user.

18. The vacuum system should have at least a 250L/sec turbopump that can handle a total flow of at least 4 mL/min.

19. Must have easy access to full ion optics.

20. Must be capable of handling at least two CI gases.

21. Must have an ion gauge to monitor the high vacuum in the MS.

Data System:

1. Must be equipped with at least a Pentium microcomputer running at least 2.4 GHz.

2. Must have at least 256 MB of 32-bit RAM memory, 40 GByte hard disk drive and a CD-RW drive, at least 17-inch monitor, and LaserJet printer. The operating system must be Windows 2000.

3. Must have the latest drug (tox) library. Software must allow for searching and creation of mass spectral libraries. This software should alos allow peak purity reports, and parametric retieval.

5. Bit-mapped graphics for rapid display, serial interface mouse, instrument interface, and full networking capability.

6. Must be able to be connected to a LIMS system.

7. Output of data and results through spooler routine to a laser printer.

8. The software file format should be compatible with existing HP/Agilent data systems.

Software:

1. Must have foreground/background software to allow data acquisition during data analysis of prior acquired samples; display ion profiles of previous or current run while acquiring new data. Currently acquired data file may be reviewed while the acquisition is still in progress.

2. Must have automated tuning and calibration of the mass spectrometer. Autotunes for PCI and NCI are standard.

3. Must have complete computer control of parameters for GC, injector, and autosampler. Also must have complete integration of sampler, gas chromatograph, and mass spectrometer methods and set-up procedures. The set point changes made in the data system user interface should have an actual readout deplaying the set point change.

4. Must be able to store and recall tune settings. This will eliminate the need for manual notation of control settings.

5. Must have complete data processing programs: full qualitative package with chromatogram enhancement, spectrum, mass/intensity list, calibration, and quantification. The quantification software should be based on full scan spectra, SIM and on retention time. It should identify target compounds by reverse library search, quantitate by integration of mass peaks, flag questionable data, and generate quantification reports.

6. Must be able to perform baseline integration either manually of automatically for flexible analyte quantitation.

7. Should have plot and report spooling with background printing standard.

8. Comprehensive self-diagnostic software.

9. The gas chromatograph/mass spectrometer operating software must be fully operable in and compatible with the Microsoft Windows 2000 or XP operating system.

10. Help files for on-line reference.

11. Library search capabilities for up to 50 chemically significant ions per spectrum with screen display of images, and/or printed search reports.

12. The system must allow for the complete automatic processing of calibration curves and quantification files in including spooling of the reports to the printer.

13. Labeled chromatogram report showing a summary of the concentrations for detected compounds, displays, and prints a chromatogram, which is, labeled with the compounds names that were found in the samples.

14. Provide ability to customize menus in the software for maximum flexibility. All menus should be accessible by the computer keyboard or by a mouse.

9. The computer software and hardware must be compatible with networking to other computers. This must be compatible with Local Area Network (LAN). Should be able to import and export data in AIA format for data system compatibility.

15. Allow the user to generate macro files consisting of multiple data processing commands for automated sample acquisition and custom processing.

16. Custom reporting shall be provided by selecting menus with the mouse.

17. All software and a restore disk (boot files, drivers, etc) must be provided on CD media to allow laboratory to restore the computer to its operational state if necessary.

Customer Support

Warranty: A one year warranty must be included in the price to cover parts, labor and travel for on-site repair of electrical and mechanical failures resulting from design or workmanship flaws for 12 months following installation. Telephone support for the software must be provided for at least 90 days.

Training: The instrument manufacturer must provide on site initial instrument training and familiarization as part of the installation process. Also the manufacturer should provide training courses in the operation and maintenance both the mass spectrometer and data system. The cost for such courses should be included as options in the bid. Also bid the cost of on site training as an option.

Service: The instrument manufacturer must provide telephone support for questions concerning operation, maintenance, troubleshooting and repairs. Charges for this service, if any should be specified.

The instrument manufacturer should respond to all service calls within 3 working days. State the maximum service response time for customers who do not have a service contract.

The instrument manufacturer should keep on stock a adequate supply of common parts so they can provide over night delivery if requested.

General Items to be included with the system:

A. A supply of spare parts and consumable parts for installation and confirmation of performance specifications must be supplied. Meeting of specific performance specifications will be required.

B. Complete system installation on a prepared site.

C. Complete set of operator and service maintenance manuals should be included.

D. Specify delivery time.

E. If the laboratory is not familiar with the system being bid the vendor must provide a selected list of customers (including telephone numbers) which are using their instrument (same options) for the application listed at the beginning of this document.